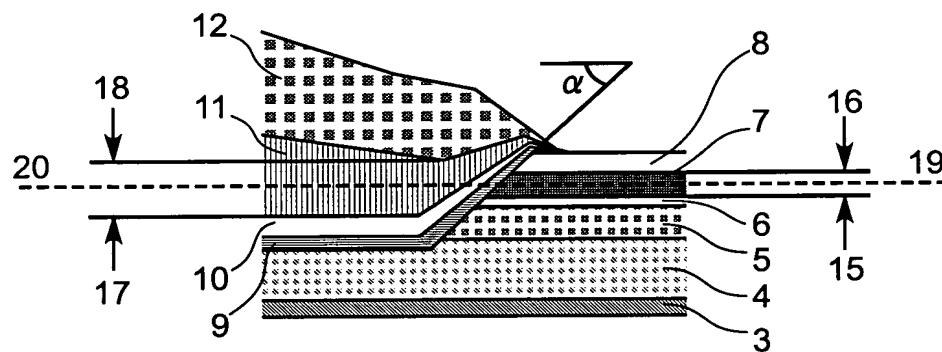
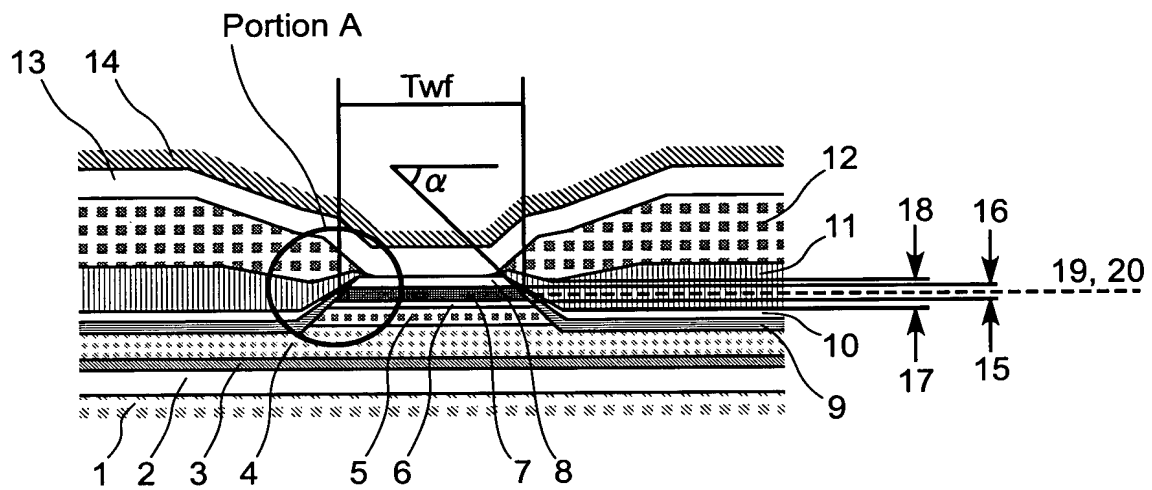
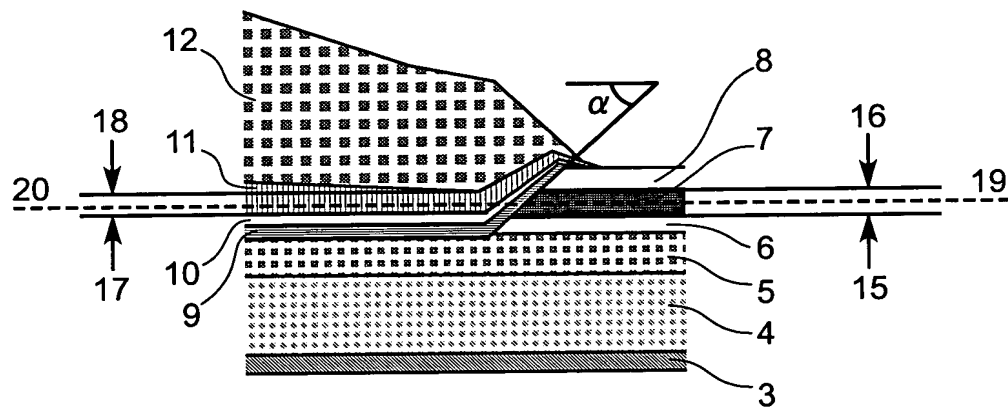
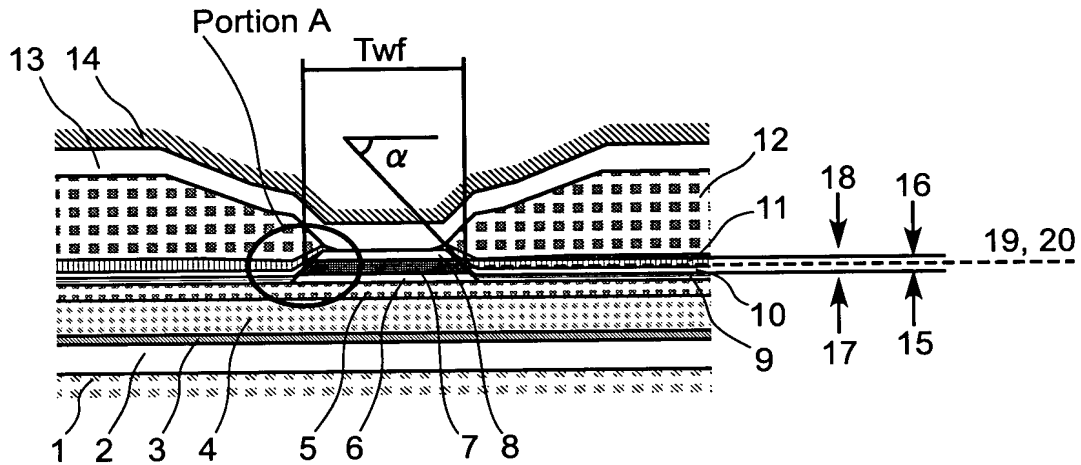


FIG.1



Enlarged view for portion A

FIG.2



Enlarged view for portion A

FIG.3

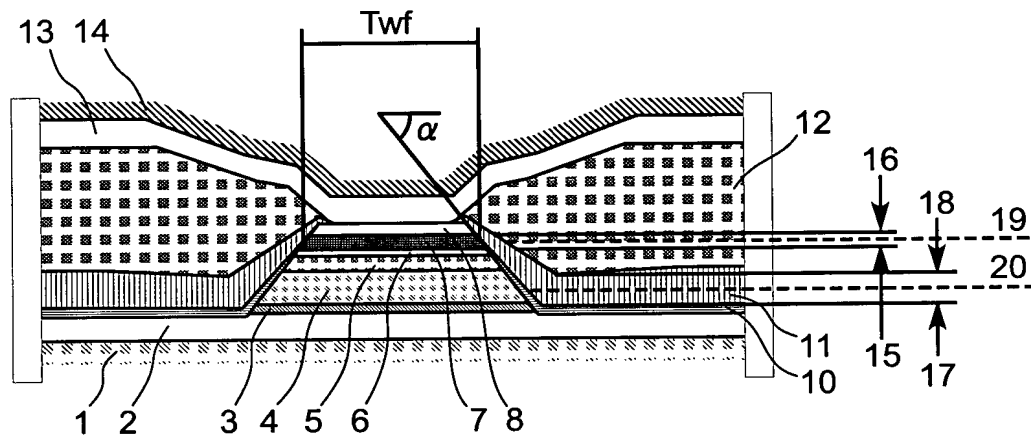


FIG.4

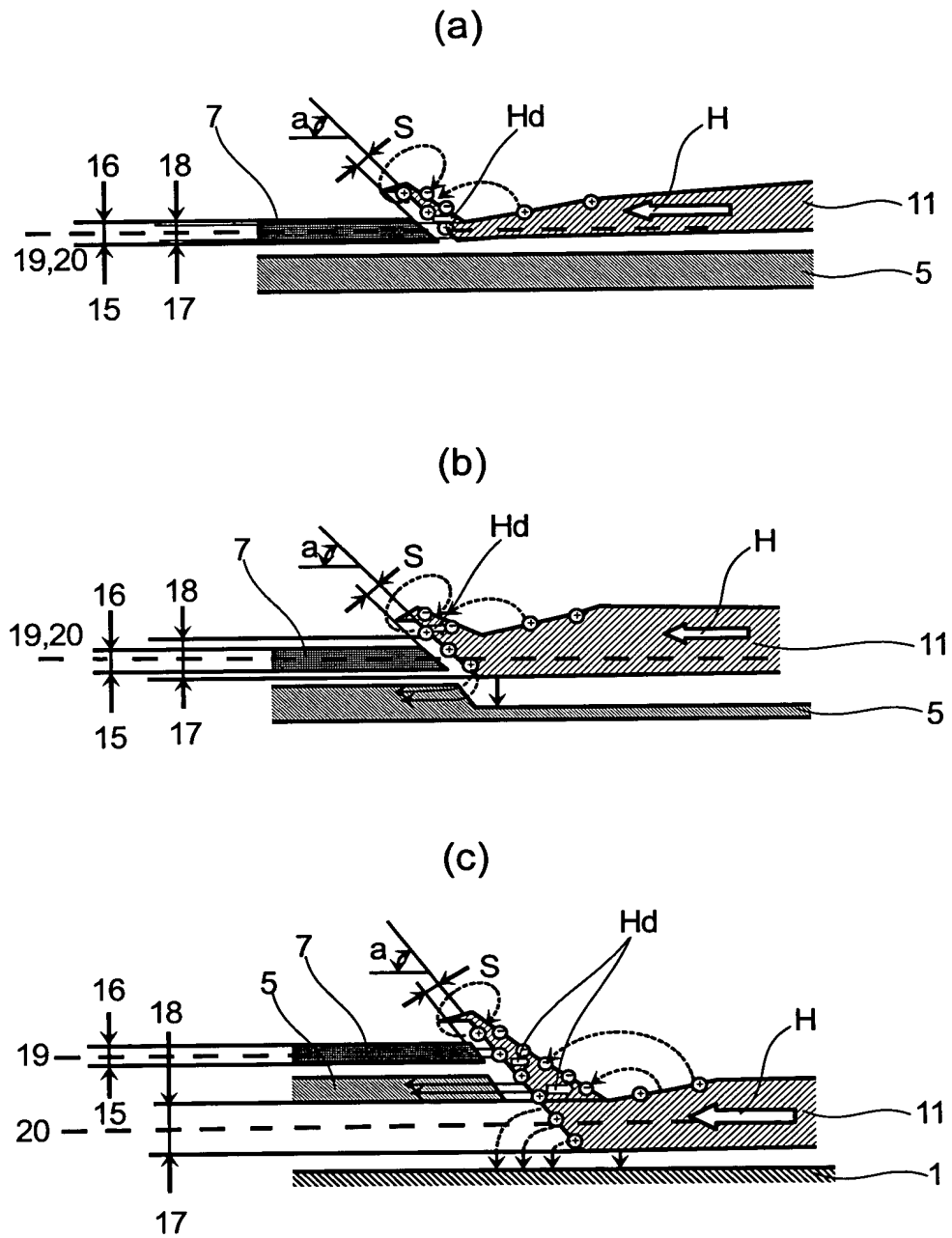
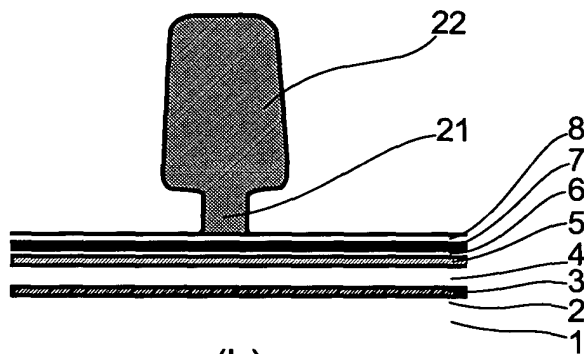
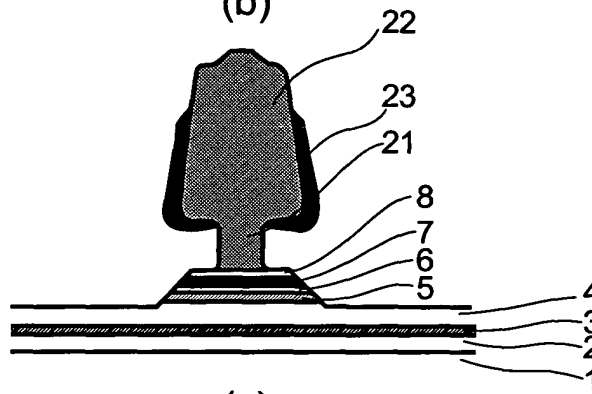


FIG.5

(a)



(b)



(c)

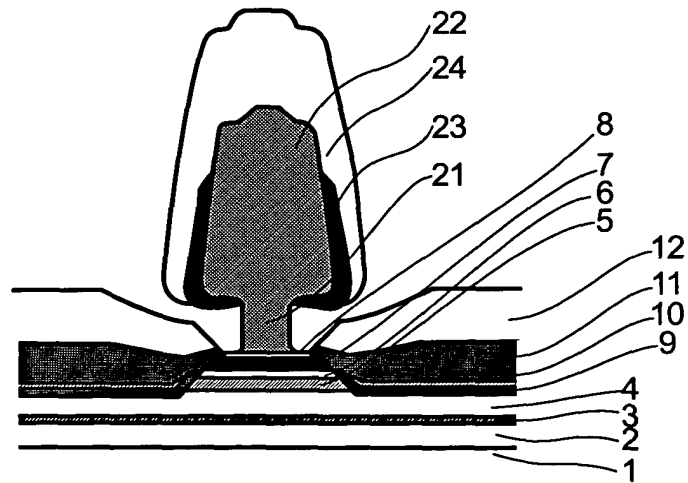


FIG.6

(Co alloy thin film) Co(00.2) Co(10.0) Co(11.0) Mixed Orientation
(Cr alloy underlay) Cr(110)
(Substrate) A1203,7059Glass

State A1

(Co alloy thin film) Co(00.2)
(Cr alloy underlay) Cr(110)
(Residual thin film after etching) Ta,NiFe, NiFe Alloy MnIr,MnPt,CoFe etc

State A2

(Co alloy film) Co(00.2)
(Cr alloy underlay) Cr(110)
Non-Oxidization
(Amorphous ally thin film) Amorphas Ni or Co-ally
(Residual thin film after atching) Ta, NiFe, NiFe Alloy MnIr, MnPt, CoFe etc

State A3

(Co alloy film) Co Non Orientation
(Cr alloy underlay) Cr-Non Orientation
Oxidization (weak)
(Amorphous ally thin film) Amorphas Ni or Co-ally
(Residual thin film after atching) Ta, NiFe, NiFe Alloy MnIr, MnPt, CoFe etc

State B

(Co alloy film) Co(11.0)
(Cr alloy underlay) Cr(200)
Non-Oxidization
(Amorphous ally thin film) Amorphas Ni or Co-ally
(Residual thin film after atching) Ta, NiFe, NiFe Alloy MnIr, MuPI, CoFe etc

State C

FIG.7

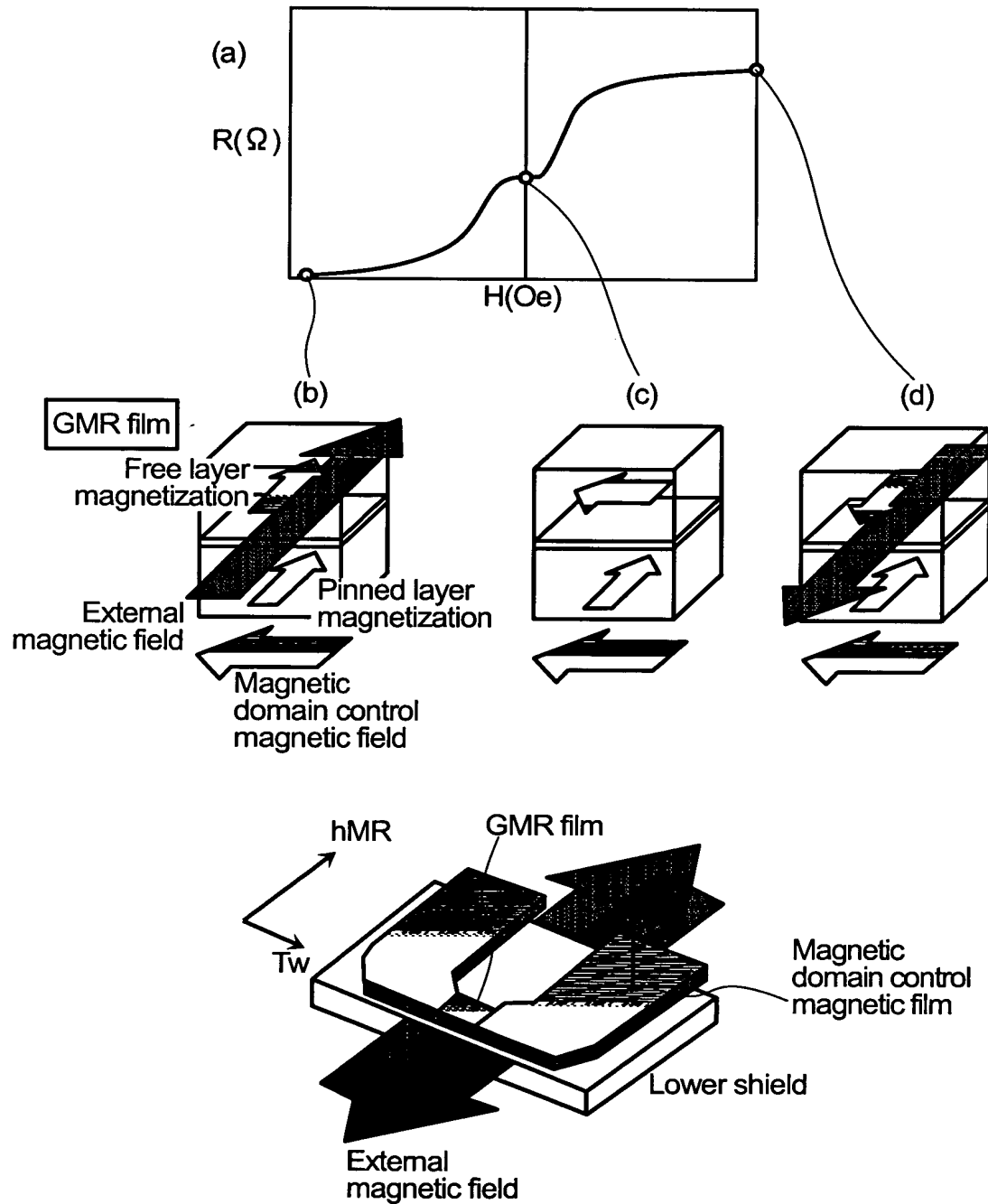


FIG.8

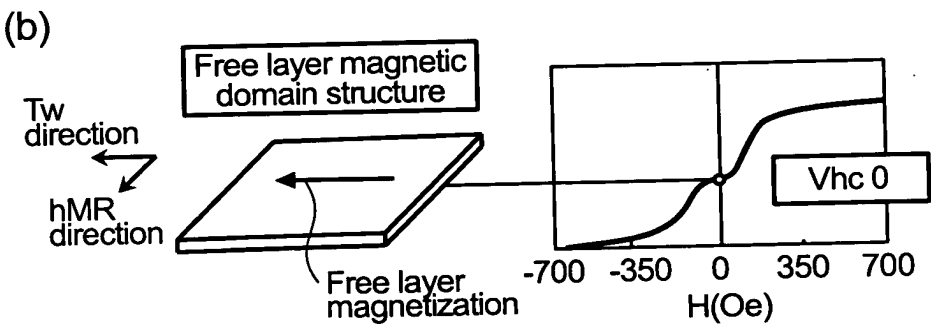
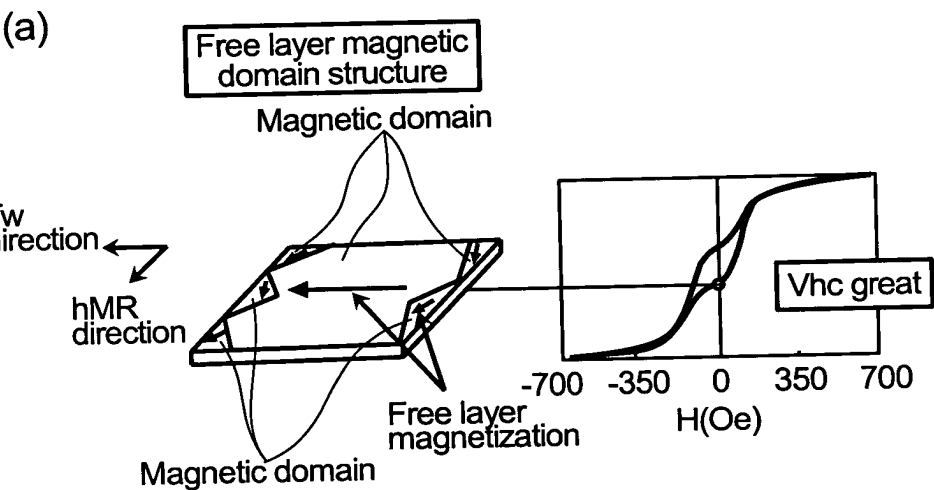
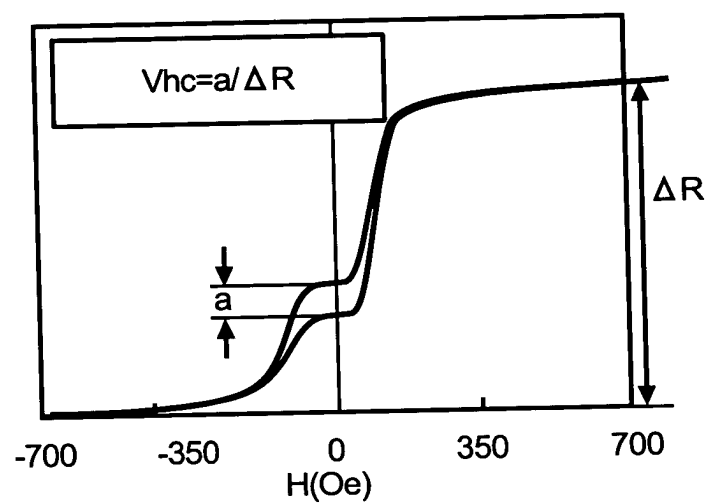


FIG.9

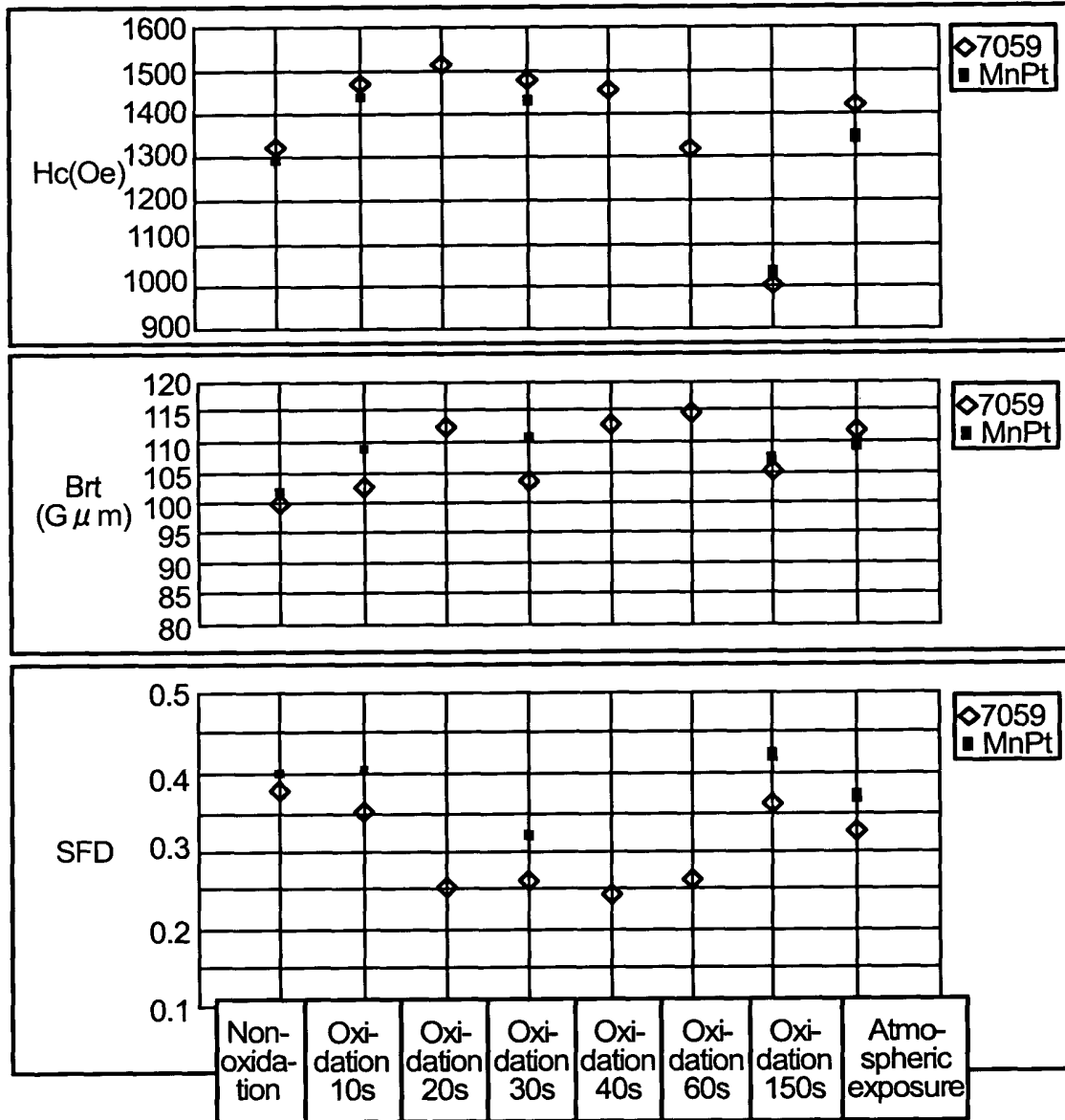


FIG.10

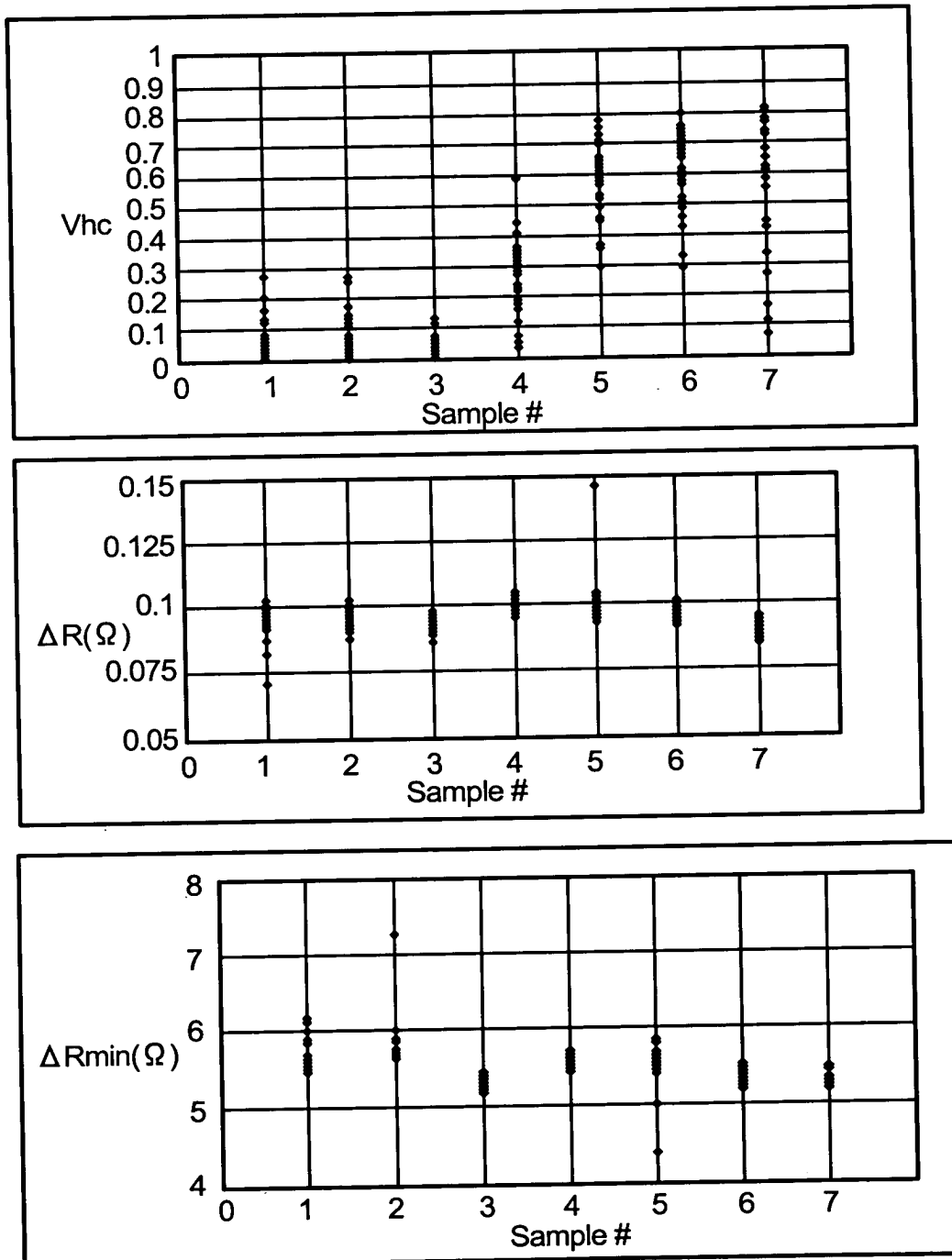


FIG.11

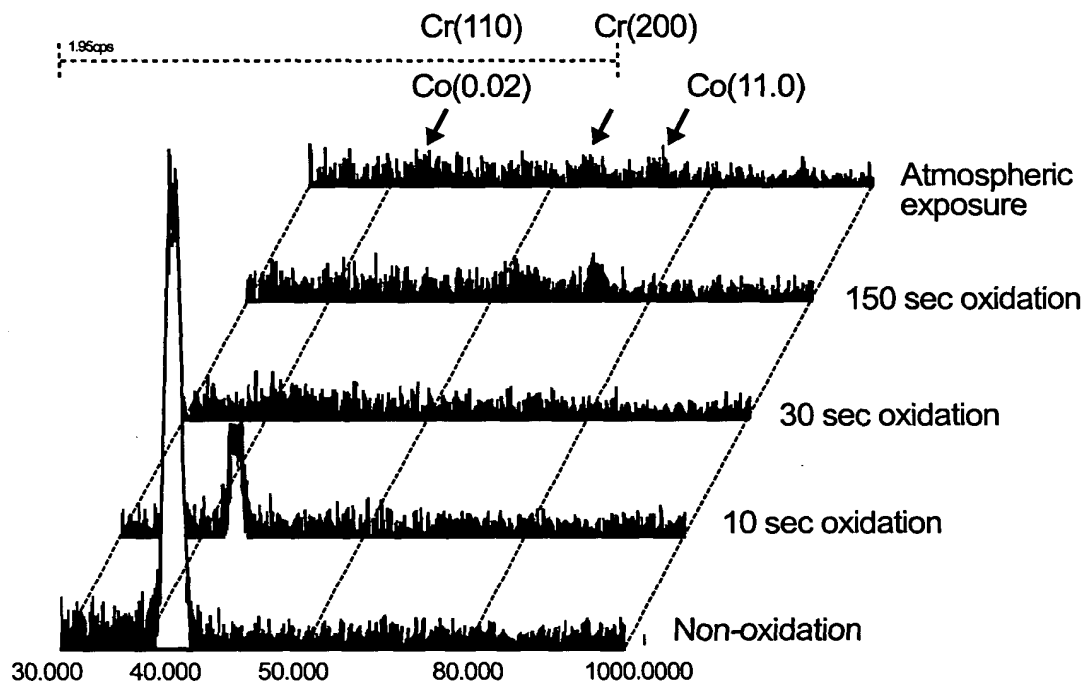


FIG.12

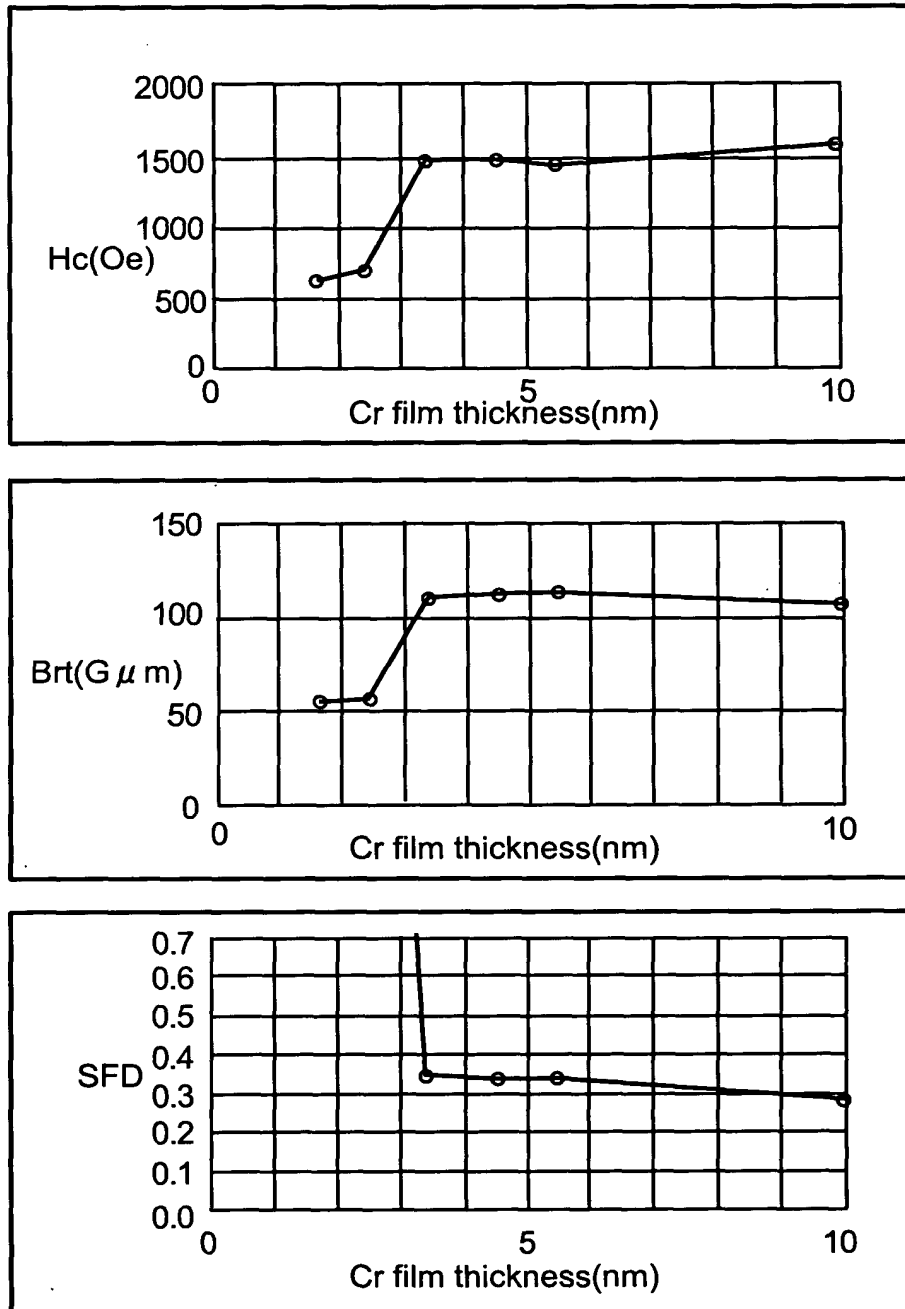


FIG.13

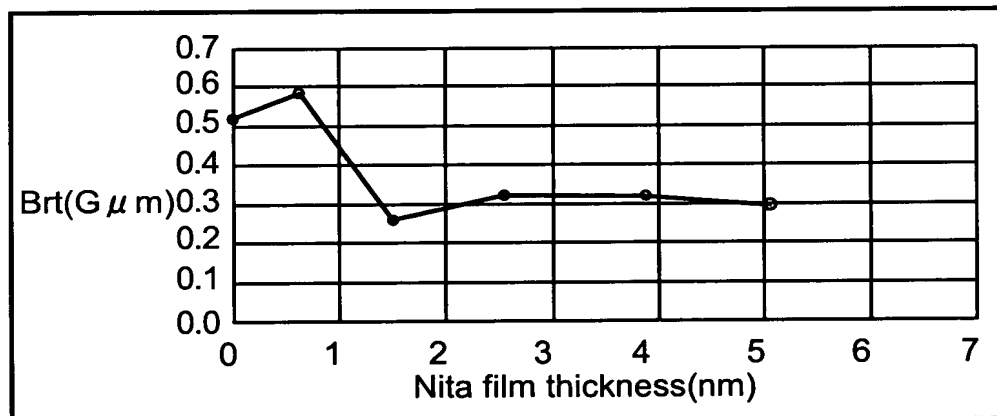
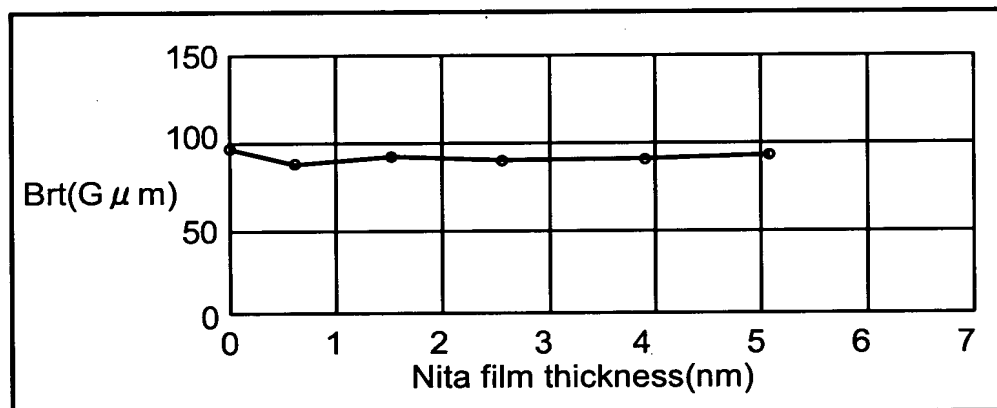
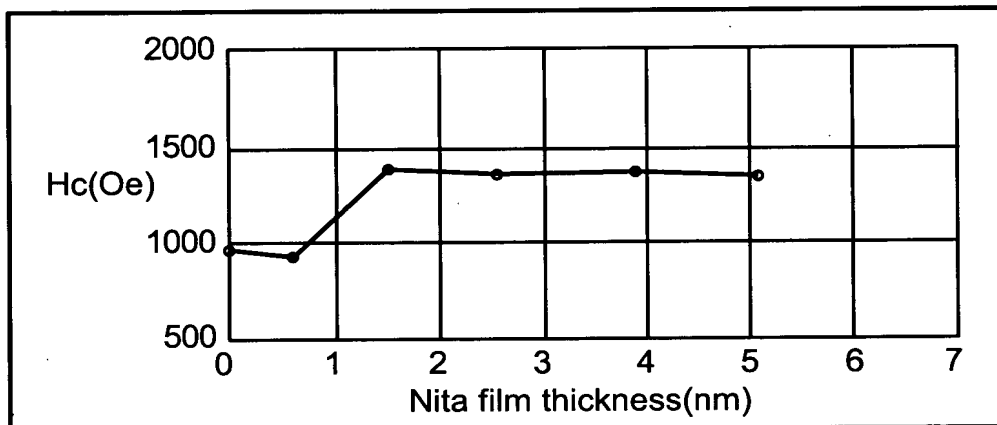


FIG.14

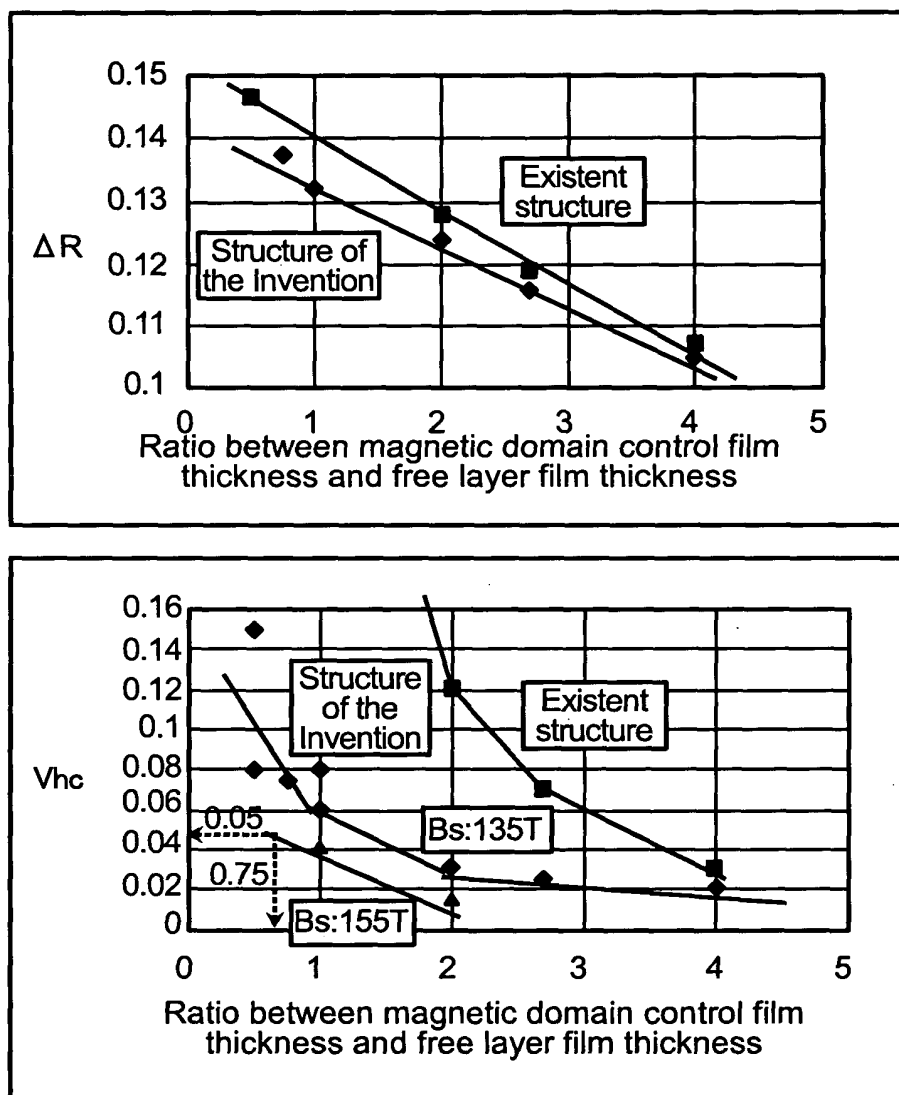


FIG.15

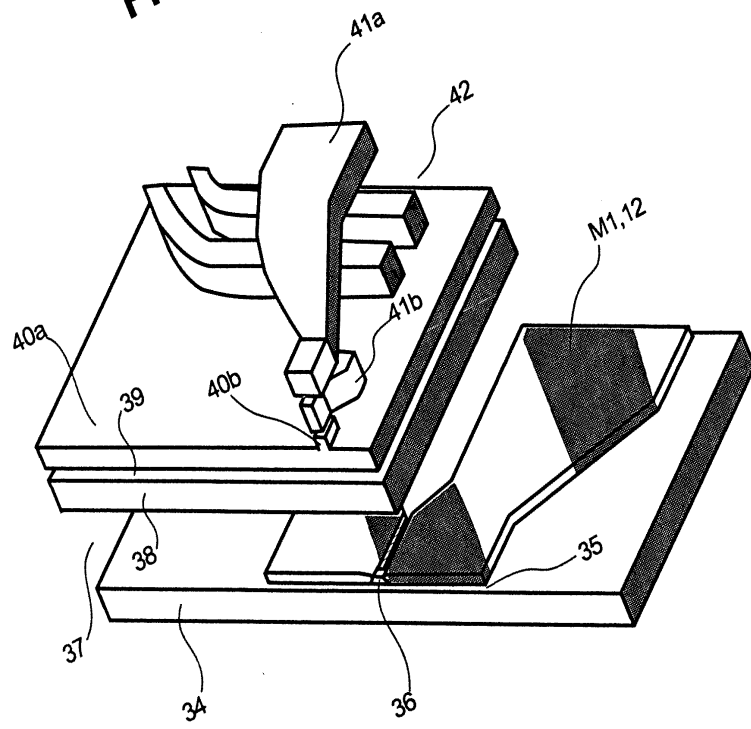


FIG.16

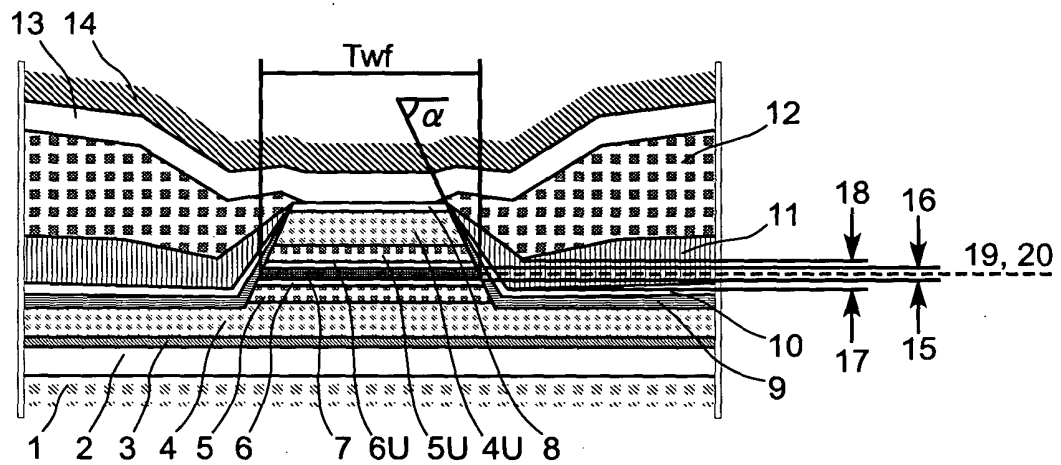


FIG.17

